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EXAMINER

WILSON, J

ART UNIT

PAPER NUMBER

2712

30

DATE MAILED:

03/16/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.
08/848,243

Applicant(s)
Nagano

Examiner
Jacqueline Wilson

Group Art Unit
2712



☒ Responsive to communication(s) filed on Dec 22, 1998

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-45 is/are pending in the application.

Of the above, claim(s) 13-45 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-12 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION II

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues that the invention corrects the change of the optical characteristics of the physical element by using stored correction information which corresponds to the operating state of the physical element. However, the arguments are addressed below with respect to the new grounds of rejection. See rejections below.

Claims 13-45 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species, the requirement having been traversed in Paper No. 5.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claim 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (U.S. 5,047,847) and Tani et al. (U.S. 4,984,088).

Regarding Claim 1, Toda et al. '847 teaches a physical element having a light transmission factor and a light transmission amount at least one of which is changeable (referred to as an LC iris; col. 23, lines 5-15; col. 28, lines 50-60), a photoelectric conversion means for receiving an optical image transmitted through the physical element at a position of an imaging plane and for converting the optical image into an electrical image signal (referred to as a CCD, See fig. 41; col. 27, lines 10-24), and a correction means for correcting a change of a physical characteristic in accordance with a change of at least one of the light transmission factor and the light transmission amount of the physical element (col. 29, lines 35-42). However, Toda et al. '847 does not specifically teach a memory means for storing a plurality of correcting information for correcting a change in an optical characteristic of the physical element with respect to a change of at least one of the light transmission factor and the light transmission amount of the physical element, and the correction means corrects the change in the optical characteristics of the physical element in accordance with the correcting information read out from the memory means corresponding to the light transmission factor or the light transmission amount of the physical element. However, Tani et al. '088 teaches that a microcomputer (element 20) determines a value and a speed in which the diaphragm (element 12) is to be corrected (col. 3, lines 60-68). This method corrects the characteristics of the physical element with respect to information in the microcomputer. Furthermore, within the microcomputer must be a type of memory means for containing the

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correcting values to physically change the diaphragm driving circuit (element 46). This would have been obvious for correcting the amount of exposure to the system. By modifying Toda et al. '847 with Tani et al. '088 provides a method for correcting the characteristics of the physical element by using information via the microcomputer for adjusting the light transmission amount of the physical element. Therefore, it would have been obvious to one having ordinary skill in the art to have a memory means for storing a plurality of correcting information for correcting a change in an optical characteristic of the physical element with respect to a change of at least one of the light transmission factor and the light transmission amount of the physical element, and the correction means corrects the change in the optical characteristics of the physical element in accordance with the correcting information read out from the memory means corresponding to the light transmission factor or the light transmission amount of the physical element.

Regarding Claim 2, Toda et al. '847 teaches the correction means adjusts a correction amount of wavelength dependency characteristics of the light transmission factor (col. 29, lines 40-42).

Regarding Claim 3, Toda et al. '847 teaches the correction by the correction means is achieved by auto white-balance control for an output signal from the photoelectric conversion means (col. 29, lines 22-28; col. 29, lines 35-40).

Regarding Claim 4, Toda et al. '847 teaches the correction of the correction means is achieved by changing a sensitivity of the photoelectric conversion means in accordance with a light wavelength (col. 29, lines 20-36).

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Regarding Claims 5 and 6, Toda et al. '847 teaches the correction by correction means is achieved by another physical element (filter) capable of controlling a light transmission factor in the photographing optical system (Fig. 56, element 650; col. 37, lines 47-60).

Regarding Claim 7, Toda et al. '847 teaches a correction means comprising a storage means for storing at least one of the light transmission factor wavelength dependency of the physical element and the correction amount of the light transmission factor wavelength dependency of the physical element (referred to as color correcting memory, Fig. 45, element 440; col. 31, lines 3-6).

Regarding Claim 8, Toda et al. '847 teaches the storage means stores at least one of a plurality of light transmission factor wavelength dependencies and a plurality of correction amounts in accordance with at least one of the light transmission factor and the light transmission amount of the physical element (col. 31, lines 1-12).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 9-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Tani et al. (U.S. 4,984,088).

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Regarding Claim 9, Tani et al. '088 teaches a physical element (referred to as a diaphragm, Fig. 1, element 12), a photoelectric conversion means (referred to as CCD, Fig. 1, element 10; col. 3, lines 1-40), and an exposure amount adjusting means (referred to as microcomputer, element 20; col. 4, lines 17-41). Tani et al. '088 teaches that a microcomputer (element 20) has the ability to determine a value and a speed in which the diaphragm (element 12) is to be corrected (col. 3, lines 60-68). This method corrects the characteristics of the physical element with respect to information in the microcomputer. Furthermore, it is inherent that the microcomputer must be a type of memory means for containing the correcting values to physically change the diaphragm driving circuit (element 46). This is performed for the purpose of correcting the amount of exposure to the system.

Regarding Claim 10, Tani et al. '088 teaches the exposure amount adjustment means electrically adjusts at least one of the light transmission factor and the light transmission amount of the physical element, but does not explicitly state that these functions are performed electrically. However it is inherently known in the art that microcomputers perform various functions electrically.

Regarding Claim 11, Tani et al. '088 teaches the exposure amount adjusting means adjusts at least one of the light transmission factor and the light transmission amount of the physical element in accordance with incident light (col. 3, lines 60-67).

Regarding Claim 12, Tani et al. '088 teaches the exposure amount adjustment means comprises storage means for storing at least one relationship between at least one of the light

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transmission factor and the light transmission amount of the physical element and at least one of the light accumulation time and the sensitivity of the photoelectric conversion means (charge accumulation time depends on the shutter speed; col. 5, lines 27-55).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kley (U.S. 4,806,776)

Takayama (U.S. 4,994,917)

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Lam et al. (U.S. 4,918,534)

Choi (U.S. 5,132,805)

Jeon (U.S. 5,200,813)

Tsuchiva (U.S. 5,322,185)

Yabe et al. (U.S. 4,803,550)

8. Any inquiries concerning this communication from the examiner should be directed to **Jacqueline Wilson** whose telephone number is (703) 308-5080. The examiner can normally be reached Monday-Friday from 9:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached at (703) 305-4929. The fax number for this group is (703) 308-5399.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or Faxed to:

(703) 308-9051, (for formal communication intended for entry)

or:

(703) 308-5399, (for informal or draft communications, please label

“PROPOSED” or “DRAFT”)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, V.A., Sixth Floor (Receptionist).

JBW 

June 11, 1998


Wendy Garber
Supervisory Patent Examiner
Technology Center 2700